



December 2004

MASTER GARDENER Communicator



MICHIGAN STATE
UNIVERSITY
EXTENSION
KALAMAZOO
COUNTY

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Things To Do in the Winter Months

- Vacuum pine needles out of your carpet
- Keep the Poinsettia alive (see article)
- Enjoy your houseplants (see article)
- Watch for the mailman everyday – waiting for the spring seed catalog
- Review last year's diary or make a list of fruit tree and ornamental care for spring
- Design plantings for the spring garden
- Rest your feet in a foot bath to ready yourself for "spring training"
- Lavish your hands in scented lotions after the fall workout in the garden
- Take a nap and dream green!

Ag Action is Around the Corner!

Some of you may not know what Ag Action is all about. MSU puts on a day-long event every year at KVCC featuring workshops about various agriculture and horticulture topics. It will be held Friday, January 28 and will run from 8:00 a.m. to 3:00 p.m. The cost is \$15 for the day (pay at the door) and includes lunch. By attending any of the workshops, you gain full credit education hours for the Master Gardener Volunteer program.

Ag Action also offers Master Gardeners an opportunity to volunteer to help as room hosts, staffing the MG booth and hall guides (qualifies as required category volunteer hours) -admittance is free if you are volunteering to help that day.

We will need to have a Booth Coordinator to design, set up and tear down the booth at Ag Action for the Master Gardener Volunteer program.

Please contact Emelee to indicate your interest in job duties for Ag Action. All job positions must be in place by early January for efficient coordination of duties and shift assignments. Call Emelee at 383-8815 or e-mail her at rajzere@msu.edu

Thanks to all of you who responded to the 2004 Master Gardener Survey. We heard you and will be working on implementing positive changes. We were also very glad to hear that you thoroughly enjoy the program and like the knowledge that you gained and continue to gain as well as helping other people.

Thanks for all that you do as volunteers in the Master Gardener Program. The year 2004 held some challenges for the program, but we are still here and making impact in the lives of those that we reach.

I wish you and your families a great and safe holiday season.

Emelee Rajzer

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U.S. Department of Agriculture and counties cooperating.
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I thought that counted as Volunteer Hours . . .

We've had a few Master Gardeners ask about recording Volunteer hours when they help at fundraising activities that only benefit that organization, painting fences, helping neighbors or family members, etc. It is State policy that to claim Volunteer hours, you must be giving of your time as a free service for the benefit of many.

There have been situations where "word of mouth" policy has been incorrect. If you are ever in doubt as to whether you may claim volunteer time on your Master Gardener report form, please contact me ahead of time. Thank you for the great work you do!

Master Gardener Volunteer Program

Mission Statement for Volunteers

Master Gardener Volunteers can share gardening skills and information with Michigan citizens by increasing people's appreciation for and use of plants and by providing them with instruction on growing plants using environmentally sound practices.

FROM THE HOME OFFICE

Keep Your Records Current

If you took the Master Gardener class in Fall 2003, please turn in your report forms. You should have completed your volunteer hours by the end of November. If there is a question or concern, please call Emelee at 383-8815 or email her at rajzere@msu.edu

If you are re-certifying, you have until December 31 to complete your 15 volunteer hours and 5 education credits, but please plan to mail in your report forms the first week of January so we can get your records updated and the re-certification card mailed to you.

Save These Dates!

- Ag Action at KVCC – Friday, January, 28 2005: We will need Master Gardener volunteers (see front page article).
- Kalamazoo County Master Gardener Assn. (KCMGA) – Meetings are held 6 times a year – next meeting is January 17, 2005. Visit the Assn.'s

web site at www.msue.msu.edu/mastergardener/kalamazoo/association/index.htm

- Introduction to Garden Design Workshop (fee) – at M-Tec Center in Oshtemo on Saturday April 16, 2005. Watch your mail for details and registration form.

- Master Gardener Volunteer Recognition Banquet (free to Master Gardeners) Thursday, May 12, 2005 at Indian Run Golf Course and Banquet Center. Watch for your invitation as this date gets closer!

- For other volunteer opportunities or educational events, visit www.msue.msu.edu/mastergardener/kalamazoo (county website) or www.msue.msu.edu/mastergardener (state website) www.msue.msu.edu/mastergardener/kalamazoo/association/events.htm (Assn. website)

- MSU Summer Conference (fee) – June 20-22, 2005. Invitations with details will be mailed in May from Michigan State University in East Lansing.

- Michigan State University Educational Workshops in 2005

These workshops will be held at MSU in East Lansing. Registration is processed through Michigan State University (not the MSU Extension office). See registration information below. You may record attendance as education credits on your report form (full credit). Contact Sandy Allen at Michigan State University for class location information or any questions: Phone (517) 355-5191, ext. 1339 or email her at allens@msu.edu

February 2005 (Tuesday workshops)

6:30-8:30 p.m. - February 1, 8 and 15

"Creating Curb Appeal"

In-depth coverage of design principles, along with class design handouts to illustrate the principles being explained. Week 1: Principles of Landscape Design. Week 2: Plant Materials. Week 3: Design Implementation.

Cost: \$90 Advance registration.

Saturday, March 26, 2005 (2 sessions to choose from)

"Pruning Wisteria"

Session I: 9-10:30 a.m.

Session II: 10:45 a.m. to noon

Cost: \$25 Class size is limited to 20 participants each session Advance registration.

Saturday, April 16, 2005

9-11 a.m.

"Let's Start Our Garden"

This class will help you start seeds for vegetable or flower gardens and teach secrets for success starting your own transplants. All materials provided for eight vegetable and eight flower varieties. Cost \$40 Class limited to 35 participants. Advance registration.

Saturday, May 7, 2005

8-10 a.m.

"Garden Bird Walk"

Walk the gardens and identify common garden birds both visually and by their songs and calls. Cost \$20 Class limited to 20 participants. Advance registration.

Saturday, June 18, 2005

8:00 a.m. departure / return 6-7:00 p.m.

"Nursery Road Trip"

Bus trip to three Michigan nurseries - plant buying adventure.

Bring your own lunch.

Cost \$50 Advance registration.

REGISTRATION INFORMATION:

Send name, complete mailing address, phone number

Class title and date choice(s)

Enclose check for workshop fee(s) payable to:

MSU Friends of the Gardens

Mail to:

Saturday Morning Gardener

A240 Plant & Soil Sciences Bldg.

Michigan State University

East Lansing, MI 48824-1325

You may also visit the State Master Gardener web page for more programs and details www.msue.msu.edu/mastergardener

More on the Volunteer Banquet

Each year MSU Extension sponsors a Volunteer Recognition Banquet for the Master Gardeners who have maintained their certification over the year. This event is our way of saying thank you to all you do as ambassadors for MSU Extension to the community whenever you volunteer whether by using your hands to make our community more beautiful or by teaching others what you have

learned. You are a vital part of our community!

At this time Master Gardeners who have achieved their Basic or Advanced Certification will receive their certificates. Special awards are given out at the banquet as well.

The Master Gardener program gives out 250, 500 and 1000 hours award pins to those who have completed those hours and kept up their certification. We have also started to recognize our Master Gardeners who have been active in the program for a period of 10 years or more. This year we have 15 individuals who will be receiving special recognition in this category.

Watch your mailbox in April for your invitation to the Volunteer Recognition Banquet. We do need you to make an advance reservation for caterer's purposes, but this is a free event to Master Gardeners. If you would like to bring one guest/spouse with you, there will be information in the invitation about meal cost and payment.

More on Introduction to Garden Design

In the past, we have offered both beginning and advanced type Landscape Design workshops. While these courses were series workshops, we felt that we needed a more in-depth training. So, we are planning to offer a similar program in April.

Lynn Wiese has developed an immersion course to teach about Garden Design and has presented this program to many locations throughout the state.

This is an intensive hands-on, one-day event that we will be offering to the community as well as Master Gardeners (there is a fee).

The office WILL NOT be taking advance registrations for this event. Watch for brochures and registration information this winter.

Caring for Houseplants

To many people, a home is not complete without attractive potted plants. Proper care of houseplants helps increase satisfaction and enjoyment from them and extends the blooming period of many flowering plants.

Most potted plants purchased from the florist have been grown in greenhouses under ideal conditions. When they are placed in home environments designed for people, not plants, they need good care to adjust to the new environment.

Watering

Houseplants are probably killed or injured more often by improper watering than by any other single factor. No general schedule can be used for watering all houseplants. Size of plant, pot, light, temperature, humidity and other conditions influence the speed with which the soil mass dries out.

When to water

In general, flowering plants need more water than foliage plants of the same size. Never water any plant unless it needs it. Soil kept either too wet or too dry causes plant roots to die, which leads to poor growth or death of the plant. Never allow plants to wilt, and never allow them to stand in water for long periods of time.

Learn to gauge the moisture content of the soil by its color and feel. As the soil surface dries it becomes lighter. Under continued drying, the soil begins to crack and pull away from the sides of the pot. When severe drying occurs, some damage already will have been done to the roots. Soil kept too moist becomes sticky and slimy, thus inviting root rots and other disease problems.

Kinds of water

Ordinary tap or well water is usually satisfactory for plants. Chlorine and fluorine often added to city water do not harm plants. Rain water or melted snow are excellent. Water run through most water softeners, however, should not be used continuously for watering potted plants.

How to water

Plants may be watered from either the top or the bottom of the pot. If you prefer watering from the top, use a watering can with a small spout and keep as much water off the foliage as possible. Each time, wet the entire soil mass, not just the top inch. Add water until it comes through the drainage hole in the bottom of the pot. Discard water that remains beneath the pot one hour after watering.

Watering from the bottom ensures thorough wetting of the soil mass. Place the pot in a pan or saucer filled with water, or dunk the pot in a bucket of deep water (just below the rim of the pot). When the top of the soil becomes moist, the entire soil ball should be wet.

Remove the pot, allow it to drain and return it to the saucer.

Salts may form a white accumulation on the soil surface if plants are watered regularly from the bottom. Occasional watering from the top helps wash out the salts. Don't allow the soil to reabsorb any water that has been run through the soil to leach out salts. Surface salt accumulation may become too heavy to remove in this way. When this happens, scrape off the surface soil and replace it with fresh soil. Try not to injure plant roots.

Drainage

Potted plants should always have good drainage. Occasionally the drainage hole may become clogged by roots. Check it by pushing a finger, stick or pencil into it. Even though drainage from the pot may be good, pot coverings may hold water. Pots wrapped in waterproof foil or placed in deep planters should be checked occasionally for standing water.

Plants with "wet feet" soon look sick; leaves yellow or drop, flowers collapse and normally healthy white roots turn brown. Any or all of these can result from stagnation of the water, too little soil oxygen and development of diseases which rot the roots.

Lighting

Improper light intensity ranks close to improper watering as a frequent cause for failure with houseplants. A plant in proper light is better able to withstand the high temperature and low humidity of many homes. The amount of light necessary for good growth varies with different types of plants.

Flowering plants

All flowering plants need moderately bright light. Plants kept continuously in poor light will have spindly shoots, few flowers, yellow foliage, poor flower color and often little or no growth.

South, east or west windows are excellent for most flowering potted plants, with the possible exception of African Violets and related plants, which prefer a north window. Plants in bloom should be kept out of direct sunlight since the flowers will heat excessively and collapse more quickly.

Light in the average room, away from windows, is not bright enough for most flowering plants, even when ceiling fixtures are kept on.

Fluorescent lights located fairly close to houseplants will improve growth when plants cannot be placed close to windows. When artificial lights are used, place them about one foot above the top of the plant, and keep them on for about 16 hours each day. Extra fertilizer, water or repotting are not cures for insufficient light.

Foliage plants

Foliage plants are generally divided into those suitable for low light areas, moderate light areas and high light areas. Only a few plants can tolerate dimly lit room interiors. Light at a north window, daylight with no

direct sun or sunlight diffused through a lightweight curtain are suitable for most foliage plants. Plants that require full sunlight should be put in a south window.

Abrupt change from a location in low light to one in bright light may be damaging. Plants can become acclimated to one location. Leaves gradually face toward light for maximum light absorption, especially in low light areas. Moving the plant disrupts this orientation, and light is not used as efficiently for a period of time. This is especially true of large plants.

Moving abruptly to more intense light also results in bleaching or burning of foliage, especially in direct sun. Any changes should be made gradually. Many plants can be kept from getting one-sided by turning them once a week.

Temperature

Proper temperatures for plants are often hard to find in the house. A hot, dry atmosphere shortens the life of flowers. Flowering potted plants should receive temperatures from 65 to 75 degrees F in the day and 55 to 60 degrees F at night. To get the most out of flowering potted plants in the home, move them to a cool spot at night.

Foliage plants are more tolerant of high temperatures, but they thrive at temperatures between 65 and 70 degrees.

In winter, plants placed close to a window may have cooler temperatures than those elsewhere in the house. If the drapes are drawn behind these plants at night, the window temperature may be too cool. On cold nights, check temperatures close to windows. Some tropical foliage plants can be injured at temperatures below 40 degrees F.

Do not put plants at windows that have hot air registers or radiators directly below them. Hot air blowing on the plants often causes leaves to brown on the edges and occasionally to drop or die.

Humidity

Air in most modern homes is extremely dry during the winter. A furnace or room humidifier can help plant growth. If one cannot be used, watertight trays placed beneath the plants and filled with constantly moist sand or gravel help increase humidity around the plants. Pots must be placed on, not in, the wet sand or gravel.

Misting over the leaves daily can help a plant overcome the stress of low humidity. Plants needing constant high humidity such as orchids or gardenias are best kept in kitchens or bathrooms where humidity often runs higher. A relative humidity between 40 and 60 percent is best for most plants but is difficult to attain in the house.

Fertilizing

Newly purchased plants have been well fertilized in the greenhouse. They seldom need additional fertilizer for a few weeks. If plants are to be discarded after flowering, there will be no benefit from fertilizing.

Plants to be kept on in the home should be put on a regular fertilization program.

When to fertilize

Fertilizing once a month is usually adequate for most houseplants that are producing new growth or flowers. During midwinter (December, January) when no new growth is apparent, fertilizer should be withheld.

Do not use fertilizer to stimulate new growth on a plant located in poor growing conditions. Lack of growth is more often due to improper light or watering than to nutritional deficiencies. In such cases adding fertilizer may actually cause additional injury.

Drop of lower leaves, overall yellow-green color or weak growth may indicate a need for fertilization. Since these same symptoms may result from poor light or overwatering, evaluate all conditions before fertilizing more than normal.

Kind of fertilizers

Water soluble, complete fertilizers have been formulated for houseplants and are available from many garden shops, florists and nurseries. They are easy to use. Since formulations vary, be sure to follow directions carefully. Do not apply more than directed. The roots of potted plants are quite restricted and easily burned by the application of too much fertilizer at one time.

Never apply liquid fertilizers to wilted plants. Water the plants first and apply fertilizer after the plants have recovered and the soil has dried slightly.

If soluble fertilizers such as 20-20-20 are available, these may also be used for fertilizing houseplants. Make a solution by mixing 1-1/2 teaspoons of this material in one gallon of water.

Some people prefer to use organic fertilizers for houseplants, but either organic or inorganic, or a combination of both will be satisfactory sources of nutrients.

Fertilizers that release nutrients slowly or over a long time period require less frequent application than liquid forms. They are available in beads, pills, spikes and other forms. Never exceed amounts suggested by the manufacturer's directions.

Repotting

Plants just brought home from the greenhouse seldom need immediate repotting. Many will not require potting for some time. A newly acquired plant must make adjustments to its new environment, and repotting immediately puts added strain on the plant.

When a plant is potbound (roots are too extensive for the pot) it may require too frequent watering and makes poor growth. This is a time for repotting.

A good potting mixture for most houseplants consists of a blend of three parts sphagnum peat, one part

Houseplants

vermiculite and one part perlite. Many commercially available “peat-lite” mixes are ideal for houseplants. Exceptions are the epiphytic orchids, which should be potted in a very porous medium such as orchid bark, and cacti, which should be potted in equal parts of peat-lite mix and sterile sand. In most cases it is wise to avoid the addition of soil to a potting medium, as this often leads to poor drainage, overwatering and root diseases.

Acid-loving plants such as azaleas and gardenias should have at least 50 percent peat moss or other organic material in the soil mixture. With good care, these plants can be grown successfully in peat moss with no soil added.

Sterilize soil mixes before using them to avoid contamination by insects, diseases and weed seeds. In one method, moist soil is heated in a 200-degree oven for about 30 minutes or until it is heated through. Cover the container or wrap soil in aluminum foil to keep it from drying out while being heated. Chemicals can also be purchased for soil sterilization.

When repotting, avoid excessive damage to the root system. Firm the soil gently around the root ball, but do not press so hard that the soil becomes compacted.

Allow enough space at the top of the pot so that water can be added easily. Water newly potted plants thoroughly, drain and do not water again until necessary.

Durable houseplants

Although all houseplants grow best with good care, there are a few that stand abuse more than others. Some of the most durable houseplants are snake plant (*Sansevieria*), heart-leaf philodendron (*Philodendron cordatum*), devil's ivy (*Pothos*), corn plant (*Dracaena massangeana*), Peperomia (*Peperomia obtusifolia*), cast iron plant (*Aspidistra*), dwarfpalm (*Collinea*), Chinese evergreen (*Aglaonema*) and spider plant (*Chlorophytum*).

Diagnosing cultural problems

Problems resulting from poor growing conditions in the home are difficult to diagnose. Often poor growth results from a combination of several unfavorable factors. See Table 1 for the most favorable cultural conditions for various common houseplants. The following list includes symptoms and causes of several cultural problems.

Lower leaves turn yellow and drop when touched

- Usually caused by overwatering.
- May occur when a new plant is moved from greenhouse to a low-light, low-humidity environment.

Yellowing and dropping of leaves at various levels on a plant

- Overwatering.
- Poor drainage.
- Tight soil.
- Chilling.
- Gas fumes.

Tips or margins of leaves appear burned, brown or both

- Too much fertilizer.
- Plant too dry for a short period of time.
- Plant exposed to too low temperature for short period.
- Use of softened water.

New leaves of plant are small

- Soil too dry for long periods.
- Poorly drained soil.
- Tight soil mixture.

New leaves with long internodes

- Not enough light.
- Temperature too high.

Leaves yellow or light green, weak growth

- Too much light.
- Poor root system possibly from poor drainage, overwatering or tight soil.

Source: David Trinklein and Ray R. Rothenberger
Department of Horticulture
University of Missouri-Columbia

Poinsettia History and Care

Poinsettia plants were introduced to the United States in 1825 by Joel Robert Poinsett, first U. S. ambassador to Mexico who obtained plants from the wilds of southern Mexico. The common name came from his last name. Early Poinsettia varieties were not particularly adaptable to greenhouse production and were also leggy, easily lost their color bracts and faded quickly in homes. In the early 1960's, there were large developments in breeding and the results were the first commercial quality cultivars.

The Paul Ecke Ranch, located in California, was instrumental in marketing poinsettia plants to the public and making them a large part of the holiday season. The Paul Ecke Ranch even worked with television venues such as the Tonight Show and the Bob Hope Christmas Specials to make certain poinsettias were always a part of holiday sets.

For information on Poinsettia care and how to save it for next year, visit the MSU Extension Bulletin website at <http://web2.msue.msu.edu/bulletins/Bulletin/PDF/E2243.pdf> for a printable version of the bulletin. Or, you may come to the office and request Bulletin #E-2243 (no charge).

Kudos to our Master Gardeners

We have two Master Gardeners who have shared information about some outstanding work they have performed and recognition received.

Davie Hough, Advanced Master Gardener, spends his spare time planning, planting, nurturing and maintaining the gardens at Applebee's on W. Main and Westnedge. His garden at the W. Main location took 1st place on the state level out of 62 Applebee's restaurants landscape entries. Great job and Congratulations!

Bill Squiers, Advanced Master Gardener, spends his spare time working in the Eastside Neighborhood area on various projects. This spring, work-

ing with the Eastside Neighborhood Housing Services, he was asked to take on organizing responsibilities and be in charge of acquiring plants and planting materials, partner with other community organizations, setting a planting schedule and signing on volunteers (many of whom were other Master Gardeners) for a eastside neighborhood-wide beautification project. After all plans were in place, he and his workers did a marathon revitalization of curb, sidewalk and site prepping, planting and maintenance. This project was submitted as part of the entries by Kalamazoo in Bloom for the 2004 America in Bloom contest. Because of this cooperative effort and hard work by Bill and many other volunteers, Kalamazoo received the America in Bloom National Community Involvement Award. Great job and Congratulations!

MSU-Kalamazoo County Master Gardener Continuing Education Quiz

This December 2004, Continuing Education Quiz is one of a series of CE quizzes presented by the *Communicator*. Each quiz, when completed and passed, will provide one hour of MSU-sponsored horticultural training credit. A passing grade is 80% correct. Please submit your quiz to: Attn: Master Gardener Program MSU Extension -Kalamazoo County, 201 W. Kalamazoo Ave., Room 302 Kalamazoo, MI 49007. All Master Gardeners may take this CE quiz for education credit. The hour is education not volunteer, so it will not count towards your basic certification.

Your name: _____

1. Name the main difference between a plant cell and an animal cell. (Hint – think of the structure of a cell.)

2. How can one over winter zonal geraniums (Pelargonium)?

3. What hardiness zone is Japanese Amdromeda (Pieris japonica) hardy to?

Zone_____

4. You have a vegetable garden. You are currently using your own lawn clippings as mulch around your plants in your garden. Your neighbor asks if you would like his/her lawn clippings. What is the first and most important question you should ask him/her before he/she applies them?

5. What are the four main types of carrots?

6. True or False- Keeping a strawberry planting picked well will prevent many insect and disease problems.

7. Hotline call- "I have a large established smoke tree. I have sandy soil and have not applied anything chemically around or on the plant. When it is really dry- I provide additional watering as needed, watering deeply and infrequently. After this spring, I noticed an entire section of my smoke tree wilt and the leaves turned brown. It seems to be spreading. What is going on and what can I do?"

8. True of False- The class of insecticides known as organophosphates have a signal word from caution to warning and an oral LD50 of 2 to 2,800.

9. Trees that are trimmed to resemble balls on sticks are called _____

10. Hotline call- "I had heard that I can mulch fallen leaves from my trees into the lawn and it will not harm it. Is this true and do you have any suggestions?"